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ORIGINAL ARTICLES.

RETINITIS PIGMENTOSA IN THE COLORED RACE.

BY S. C. AYRES, M.D., CINCINNATI, OHIO.

R. T., æt. 45, a carpenter by occupation, a strong, well-built mullatto, gave the following history of his case:

He says that for more than twenty years he has had difficulty of seeing at night and in feeble light. This defect of vision has gradually increased until now he cannot walk alone at night, and has difficulty in avoiding articles of furniture when he enters a room in day-light. Out of doors he can see fairly well and can still work at his trade. He is myopic in both eyes and without glasses V—0.1. Right eye M 2.5 D. V—0.5. Left eye M 3 D. V—0.4. His field of vision is concentrically contracted in both eyes. Examined with a perimeter the field of vision in his right eye is vertically 20°, horizontally 26°. In the left eye his field of vision is 20° in both diameters. The fundus of each eye presents the characteristic

retinal pigmentation. The pigment is approaching the O. D. in both eyes from all directions. The optic discs are somewhat blanched and the calibre of the arteries very much narrowed. In all respects it is a typical case of retinal pigmentation. He is the oldest of eight children and the only one similarly affected so far as he knows. His parents were not related and both had good eyes. His mother is still living and enjoys good vision.

This is the only case of this disease I have ever seen in the colored race, and therefore report it, hoping it may call forth statements from other observers who have better opportunities than I have for seeing diseases among these people.

TRANSLATON.

THE VALUE OF ANTIPYRINE IN OPHTHALMO-THERAPEUTICS.[1]

BY DR. B. WICHERKIEWICZ, POSEN.

Translated by A. ALT, M.D., St. Louis.

Antipyrine is one of the series of remedies which, thanks to the progress in chemistry, have sprung up in our time like toadstools after a rain, and which have been rightly or wrongly recommended against different diseases. It differs from other remedies by advantages which secure it a permanent place in our armamentarium.

Whatever text-books describe the advantages of this remedy, speak of its antipyretic action, (hence its name), and further call it a nerve remedy. I have, however, never found any mention of its antiseptic power, although Demroth suspects that the apyresis brought about by antipyrine is simply due to its antiparasitic faculties. As a proof of this he states that after the ingestion of antipyrine the temperature is decreasing before the sweating comes on, and consequently this decrease cannot solely be due to the sweating.

C. Engel states that the antibacterial effect of antipyrine is much smaller than that of salicylic acid and quinine. Therefore (? Transl.) the internal exhibition of *antipyrine* has been extensively made use of, whether in order to reduce the tem-

[1]Paper read in the medical section of the Society of the Friends of the Sciences at Posen, Nov. 7, 1890, enlarged by more recent experiences.

perature or in order to reduce pain and reflex irritability. Never, however, as far as we know, has the remedy been used *locally as an antiseptic.* Bosse[2] alone praises its effect on ulcers of the leg which are said to have healed rapidly under the influence of antipyrine powdered on them.

It is not my desire to examine into the value of antipyrine in general surgery, I simply desire to point out its valuable peculiarities in ophthalmic therapeutics, and to draw particular attention to its thus far unknown or too little employed characteristics.

Thus far antipyrine has been almost exclusively used internally or by subcutaneous injection. Leaving aside as too well known, the subcutaneous injections, as recommended by Germain Sée, against neuralgia of the trigeminus, I wish to relate a few less well-known cases and especially the following case of Rampoldi:[3]

A patient who had been blind for three years from total occlusion of the pupil and secondary glaucoma had extreme pains. He did not consent to an iridectomy, till sympathetic ophthalmia attacked the fellow eye. Although this did not relieve him, he did not allow the eye to be removed.

Having tried various remedies in vain Rampoldi gave the antipyrine three grammes daily. After the first two grammes the pain and the symptoms of sympathetic ophthalmia began to get less and in a short time a complete cure was accomplished.

Panas[4] recommends antipyrine internally in diabetes with cataract. It diminishes the secretion of sugar in a daily minimal dose of three grammes, in spite of a mixed diet, and checks the development of the cataract.

Kacaurov[5] used antipyrine in twenty-nine cases, especially

[2]Antipyrin ein Refœrderungsmittel der Granulationsbildung bei atonischen Unterschenkelgeschwüren. Berlin. klin. Wochenschr., 1886, p. 33.

[3]Caso grave d'oftalmodinia quarito con l'antipyrine. Annali d'ottalmologia, 1889, p. 58.

[4]Archives d'ophtalmologie, May and June, 1889, p. 265.

[5]Wracz, No. 7, 1886.

in neuralgia following different eye affections, after cataract extraction, in inflammations of the cornea, glaucoma, etc.

Grand-Clement of Lyon, before the French Ophthalmological Society, in 1888, related a case of one-sided hemeralopia which he cured with four subcutaneous injections of antipyrine made in the temporal region. It was by accident, as is so often the case, that a remedy given for a certain purpose, was found useful in a totally unexpected direction. The case was the following:

The hemeralopia was due to a very insignificant retinitis caused by a traumatic hepatitis, which was brought about by a fall from a horse four years previously and which had been cured for three years. Having employed uselessly different remedies against the hemeralopia Grand-Clement gave antipyrine to get rid of a very disagreeable blepharospasmus, and was greatly astonished when the patient felt the hemeralopia improved after the first injection, and was perfectly cured in nine days by four injections, even before the blepharospasmus had totally disappeared.

In another communication made to the Academy of Medicine of Paris, the same author recommends antipyrine injections against blepharospasmus.[6]

We see from the foregoing that antipyrine has been recommended internally as well as by subcutaneous injection in different affections. It was also tried as a hæmostatic. Chibret[7] recommends subcutaneous injections of antipyrine with cocaine before making an enucleation, in order to prevent serious hæmorrhage.

Hénoque and Huchard also consider antipyrine a hæmostatic. Although I have not been able to understand the necessity for such injections, since hæmorrhage after enucleations have never appeared to be serious, the employment of antipyrine in the detailed manner may be of use in special

[6]Union Médicale, 1888, No. 60, p. 739.

[7]Emploi de l'antipyrine dans l'énucleation du globe oculaire. Recueil d'ophtalmologie, 1889, No. 1, p. 27.

cases, as for instance, in evisceration of the orbit in which a clear view which is of especial importance is often obstructed by hæmorrhage; furthermore, in cases of optico-ciliary neurotomy, since the hæmorrhage after this operation is very apt to produce exophthalmus.

Chibret injects one gramme of antipyrine, two centigrammes of cocaine, and two grammes of water.

I have often had occasion in my clinic to confirm the effects of antipyrine just spoken of.

I have given it internally or by subcutaneous injection almost exclusively in cases of intense pain after superficial injuries to the cornea, furthermore, in iridocyclitis, in blepharospasmus and in neuralgias of the trigeminus, which, two years ago, were so frequently seen as sequel to influenza. I may here state that such injections must not be made close to a large nerve-branch, since they cause a long continued pain and often even a swelling which lasts for weeks and disfigures the patient. This is especially the case if the solution is too strong (for instance, 100%, as Germain Sée recommends).

In my opinion, based on a large experience, solutions of from 25% to 50% are sufficient.

In view of the well-known antipyretic, antiseptic and antineuralgic effect of this remedy, I thought it possible to make use of these peculiarities in oculo-therapeutics by applying it immediately to the diseased tissue. By clinical observation of a whole series of cases I became convinced that we really have in antipyrine a remedy which may be used successfully in this manner and which in some instances is very much superior to other well known remedies.

I employ solutions of from 1 to 20%, either pure or with a small quantity of the bichloride of mercury. With strong solutions of the bichloride of mercury, antipyrine forms a white precipitate; with solutions of boracic acid, the precipitate is so much thicker that they cannot be employed at all. Sulphate of copper causes a greenish precipitate.

My experience is now based on from 500 to 600 cases. The results may be summed up as follows:

Antipyrine has no astringent quality; it is, however, a very good antiseptic remedy in acute as well as in chronic inflammations of the conjunctiva, which are caused by an infection and begin with considerable discharge. This discharge disappears in a short time under the application of antipyrine, but the inflammatory condition remains unchanged unless other remedies are at the same time employed against it.

In granular conjunctivitis and especially in the process of softening of the granulations, antipyrine used in a 25% solution two or three times a day, after the granules have been squeezed out, diminishes the profuse discharge, and alters the conjunctiva in such a manner that it is more easily influenced by other remedies. Aside from the diminution of the discharge the swelling of the conjunctiva decreases slowly and this membrane assumes its normal appearance.

I have further on seen that pannus of the cornea clears up rapidly or disappears altogether. The effect of antipyrine is less favorable in cases of acute granular conjunctivitis and nitrate of silver is here decidedly to be preferred. In the beginning antipyrine may be used as an antiseptic, but as soon as swelling, injection and discharge do not show any diminution it is necessary to use astringents alone, or in conjunction with it.

In quite a number of instances I have found that certain forms of conjunctivitis which had remained totally indifferent to old and approved remedies, could be influenced in the most favorable manner by our remedy. This was especially so with the conjunctivitis following influenza, which in my experience, could often not bear any other remedy.

It almost seems that antipyrine has an especial influence on the micro-organisms of influenza.

My ideas in this direction must, of course, be verified by experiments, when the characteristic influenza microbe will have been isolated.

I may mention that antipyrine acted especially well in that rare form of conjunctival disease, the papillary trachoma, which is often overlooked since it produces no very pronounced lesion.

In making a superficial examination of such eyes we often find nothing; with a magnifying glass, however, we see the real conditions. There is injection and more or less swelling of the papillary body. These changes annoy the patient and cause itching, pressure, continued pain, and especially an inability to do near work for any length of time on account of a feeling of dryness and sleepiness.

This conjunctival affection is doubtlessly a form of granular conjunctivitis which it precedes or follows, according to my experience. It is, however, quite often seen as a separate form of disease. Its epidemic or endemic appearance shows the infectious nature. This disease uncommonly resists the usual remedies and the patients are generally treated for months and even years with various remedies which only increase their discomfort. I do not doubt, moreover, that the complex of symptoms called asthenopia nervosa is very often produced by this affection of the conjunctiva.

In this disease a weak solution of antipyrine (from 3 to 5%, where there is catarrhal discharge combined with a $^1/_3$ to $^1/_2$% solution of sulphate of zinc) has proven to be an excellent remedy. It must be instilled from one to three times a day.

I have found that antipyrine is also very valuable in chronic blennorrhœa of the lachrymal sac. In three cases treated without any improvement by means of alum, zinc, sublimate, nitrate of silver, etc., injections of antipyrine brought about a speedy cure.

Later on I injected a 25% solution once or twice a day, having cleaned the sac first by injecting a solution of boracic acid, and have found it perfectly satisfactory. Of course, the primary affection must be treated also.

In phlyctænular conjunctivitis or strumous keratitis antipyrine is ineffectual. Anyhow, we have a number of better rem-

edies. In blepharitis marginalis and in internal eye affections antipyrine used externally gave no appreciable results.

In episcleritis and scleritis antipyrine sometimes not only allays the very disagreeable pain, but acts very favorably upon the swelling and exerts some influence upon the accompanying dimness of the cornea. In these cases I have made use of an ointment containg 10% of antipyrine.

Last year I saw an extremely favorable action of instillations of antipyrine (5 to 10%) in a case of vernal conjunctivitis. Other remedies were however used at the same time, but they never had such a good effect when used alone.

Antipyrine has shown itself useful also in glaucoma.

In a man, 60 years of age, who had an iridectomy performed secundem artem but unsuccessfully on an eye suffering from hæmorrhagic glaucoma, I succeeded in removing the extreme tension and severe pain (other means having failed) by instilling twice daily a few drops of a 25% solution in the respective side of the nose while the head was tilted backward. (This case will be reported elsewhere in full). I have since seen a good effect in a number of cases of glaucoma treated in the same manner.

I have not used antipyrine in any other forms of eye diseases.

As stated above, I have used antipyrine almost exclusively in solutions. These must be instilled into the eye when fresh or after having been sterilized by boiling. Even a 2% solution causes a burning sensation, which is increased with the strength of the solution, and may become very painful. This disagreeable sensation, however, lasts but a short time, to give place to a rather agreeable feeling. For a short time the visual acuity seems to be increased, as I found in my own case. My visual acuity (M. 0, 5) of $^6/_V$ always increased to $^6/_{IV}$ after the instillation of a 5% solution. Pupil and accommodation are in no way influenced, neither the normal sensitiveness of conjunctiva or cornea. Yet it seems to diminish pathological hyperæsthesia. Strong solutions (50%) cause a severe con-

tinuous pain, probably by destruction of the epithelium and irritation of the nerve ends.

The remedy may also be used in ointments (5 to 100%); I can, however, not especially praise this mode of employment, and the patients do not seem to like it. In cases of trachoma I have also used the remedy as a powder mixed with sugar or boracic acid, but found it wanting.

How can we explain the favorable action of the remedy when locally applied?

First, it removes the cause of the disease by killing certain microbes; second, by contracting the blood-vessels it reduces the hyperæmia and gives the tissues their natural elasticity; third, by the intense burning sensation the instillation causes a sudden reflex spasm of the lids, which gradually disappears and thus acts beneficially upon the condition of the conjunctiva, subconjunctival tissue and cornea, in the way of massage; fourth, it reduces the increased sensibility and somewhat alleviates pain.

From the foregoing remarks it is seen, that antipyrine is a valuable remedy in the treatment of eye diseases.

It is not probable that it will cause toxic symptoms when used externally in the form of instillations, ointment or powder; whether it may not under certain conditions cause continued local irritation or have even a deleterious local effect, my experience does not warrant me to say.

While thus recommending to my colleagues this remedy for further experimentation in the detailed directions I want to warn them beforehand, that it may not always act beneficially in the diseases mentioned. We must never forget that the physician's first duty is to individualize his cases when prescribing.

Like other remedies, antipyrine may, in two seemingly parallel cases, act beneficially in one and disastrously in the other.

If there is a small number, only, of affections in which the action of this remedy is superior to that of others, we will, by introducing it, increase our therapeutic possibilities.

SOCIETY PROCEEDINGS.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, JANUARY 28, 1892.

HENRY POWER, F.R.C.S., President, in the Chair.

CASE OF TUBERCULOSIS OF THE IRIS, SUSPENSORY LIGAMENT, AND RETINA.

This paper by Mr. R. L. Knaggs (Leeds) was read by the Secretary. A boy, æt. 9 months, suffered from iritis of a quiet type, with fourteen to twenty white nodules in the iris. Those in the lower part of the anterior chamber coalesced, forming a large yellowish mass which protruded at the sclero-corneal margin. The eye was excised, but the child died seven weeks later from tubercular meningitis. Sections of the eye showed that the iris had been transformed into a tuberculous mass, in which were many well-marked tubercles. The inflammatory growth had thinned and bulged the outer tunic of the eye, had penetrated the uveal pigment layer at a point just in front of the ciliary body, had passed through the suspensory ligament, and had been stopped abruptly at the hyaloid membrane. The canal Petit was filled with inflammatory exudation, and contained sederal tubercles in which giant cells were well marked. The suspensory ligament did not seem to have undergone any alteration, although embedded in tuberculous tissue. In the lens were spaces filled with inflammatory cells, and in the retina there was an inflammatory focus situated between the

nerve fibre layer and the pigment layer, the latter being quite unaffected. The was recorded not only as a contribution to the literature of tubercular iritis but because of the bearing it had upon questions connected with the suspensory ligament. Drawings of the pathological conditions were exhibited.

THE ETIOLOGY, PROGNOSIS AND TREATMENT OF DISSEMINATED DOT CATARACT.

MR. C. WRAY (Croydon) read this paper, in which, after noting that the literature of the subject was very scanty, he said that in its commonest form this affection was characterized by very numerous punctiform opacities, generally less than 0.5 mm. in diameter, symmetrically arranged in the crystalline lenses. The dots were generally most plentiful toward the equator, and in some instances were confined to that region, the central part of the lens being quite free. Sometimes there were also streaks of opacity, arranged without reference to the anatomical structure of the lens; occasionally the dots were so minute, and situated so peripherally, as to be overlooked unless carefully searched for.

The following varieties of dot cataract had been noticed:

1. The simple form as above described, occurring in young subjects, with no other changes suggestive of lens degeneration.

2. The simple form complicated by the presence of opaque streaks arranged without reference to the anatomy of the lens.

3. Vacuoles present in addition to the dots and streaks.

4. The above conditions with degenerative changes suggesting ordinary advancing cataract.

The affection was most easily recognized in childhood; in later life it might be mistaken for developing senile cataract. There was nothing in the history of the condition of the patients to account for the lens changes; the simplest view was that they were merely transmitted structural peculiarities, like the white dots found on the finger nails. This explana-

tion seemed the more probable, since in each case in which the condition was found in children, it was present in the mother. In regard to prognosis, two points were noteworthy; the non-deterioration of vision in those parents who were affected, and the presence of the dots unchanged in one patient who had advanced nuclear (senile) cataract. In only one instance had the question of treatment to be seriously discussed, and in this, the vision with correcting glasses being equal to the patient's requirements, no active interference was advised. If in any case the sight were not sufficient for the requirements of the individual, the rules applicable in the treatment of lamellar cataract would apply. Nine cases were recorded, in nearly all of which the refraction was ametropic. In six cases in which the children were discovered to have disseminated dot cataract, the same condition was found in the mother. In no instance in which it was present in the child was it absent in the parent. In two cases it was present in a parent, once the father, once the mother, but absent in the offspring.

MR. SYDNEY STEPHENSON said he had seen a number of cases like those described by Mr. Wray, and in several he had noted congenital defects of the eyes, for example, opaque nerve fibres, persistent pupillary membrane, etc. He asked if Mr. Wray had found such defects in any of his cases.

MR. LANG said that, in his experience, the lens was easily extracted in cases of dotted cataract with nearly clear cortex, and he had consequently no hesitation in advising operation.

MR. LAWFORD thought the vacuoles in the lenses, alluded to by Mr. Wray, were not uncommon in cases in which no other evidence of lenticular change was forthcoming. He had observed some cases for three or four years, and had been unable to detect any increase in the size or number of the vacuoles. He asked whether their presence had any significance.

DR. DOYNE was unable to agree with Mr. Lang as to the ease with which these dotted cataracts could be extracted.

He had found considerable difficulty in removing the cortical portion of the lens.

MR GUNN inquired if the dots of opacity were very numerous, and Mr. Juler asked if the condition was generally non-progressive.

MR. WRAY, in reply, said that the dots in the lens were generally present in large numbers. He thought that the opacities in most cases remained nearly stationary. He had seen one case in which there was a persistent hyaloid artery.

CARD SPECIMENS.

MR. CRITCHETT: Case of Conical Cornea Treated by Galvano-Cautery Without Perforation.

MR. GUNN: Apparatus for Illuminating the Eyeballs From Behind.

MR. JULER: Microscopic Demonstration of Hyaloid Growth from the Lamina Vitrea of the Choroid.

MR. HIGGINS: Tuberculosis of Iris.

MR. ERNST CLARKE: Case of Unusual Retinal Detachment (?) Neoplasm.

NEWS.

THE PAN-AMERICAN MEDICAL CONGRESS.

The Committee on Permanent Organization met at St. Louis, October 14, 15 and 16, 1891, and adopted a series of General Regulations for the permanent organization of the Pan-American Medical Congrers, and a series of special Regulations for the government of the first meeting, and recommended that the Incorporators adopt both series of regulations as the organic law of the Congress.

Pursuant to such Regulations the following general officers were elected, viz.:

President.—William Pepper, M.D., LL.D., Philadelphia, Pa.

Treasurer.—Abraham M. Owen, A.M., M.D., Evansville, Ind.

Secretary General —Charles A. L. Reed, M.D., Cincinnati, Ohio.

International Executive Committee.

Argentine, Dr. Pedro Lagleyze; Bolivia, Emilio de Tomassi; Brazil, Dr. Carlos Costa; British North America, Dr. James F. W. Ross; British West Indies, Dr. Jas. A. De Wolf; Ceili, Dr. Moises Amaral; Columbia, P. N. Ibanez; Costa Rica, Dr. D. Nunez; Ecuador, Dr. Ricardo-Cucalon; Guatemala, Dr. José Monteris; Haiti, Dr. D. Lamothe; Hawaii, ; Spanish Honduras, Dr. George Bernhard; Mexico, Dr. Thomas Noriéga; Nicaragua, Dr. Juan I. Urtecho; Paraguay, ; Peru, Dr. José Cassamira Ulloa; Salvador, Dr. David J. Guzman; Santo Domingo, ; Spanish West Indies, Dr. Juan Santos Fernandez; United States, Dr. A. Vander Veer;

Uruguay, Dr. Jacinto De Leon; Venezuela, Dr. Elias Roderiguez; Danish, Dutch, and French West Indies,

The Auxiliary Committee nominated by the various members of the Committee on Permanent Organization each for his own State, and already commissioned by the Chairman, was confirmed.

The election of officers of sections was begun, but time would not permit of the completion of the list which was referred to a special committee with power to act. It has been inexpedient to publish the list until it is completed, which can hardly be accomplished before the meeting of the Committee on Permanent Organization at Detroit in June; but the organization of particular sections will be announced through the medical press as rapidly as officers are elected by the special committee.

In accordance with the wish of the Committee on Permanent Organization as expressed in Special Regulation No. 4, Drs. I. N. Love, A. B. Richardson, L. S. McMurtry, R. B. Hall, E. V. Fitzpatrick and Charles A. L. Reed met in Cincinnati and signed the legal form of application for Articles of Incorporation of the Pan-American Medical Congress, which Articles of Incorporation were duly issued by the Secretary of the State of Ohio, under date of March 15, A.D., 1892.

At a meeting of the Incorporators held March 16, 1892, the following Regulations, general and special, recommended by the Committee on Permanent Organization were formally adopted as the organic law of the Pan-American Medical Congress in accordance with the Laws of Ohio, and all elections had by the Committee on Permanent Organization, in accordance with such regulations were confirmed and made a part of the laws of the Congress:

GENERAL REGULATIONS.

TITLE.

1. This organization shall be known as "The Pan-American Medical Congress," and shall mmet once in —— years.

MEMBERSHIP.

2. Members of the Congress shall consist of such members of the medical profession of the Western Hemisphere, including the West Indies and Hawaii, as shall comply with the special regulations regarding registration, or who shall render service to the Congress in the capacity of Foreign Officers.

OFFICERS.

3. The Executive Officers of the Congress shall be residents the country in which the Congress shall be held, and shall consist of one President, such Vice-Presidents as may be determined by special regulations, one Treasurer, one Secretary-General, and one Presiding Officer and necessary Secretaries for each section, all of whom shall be elected by the Committee on Organization, and there shall be such Foreign Vice-Presidents, Secretaries, Auxiliary Committees as are hereinafter designated.

THE COMMITTEE ON ORGANIZATION.

4. The Committee on Organization shall be appointed by the representative medical association of the country in which the Congress shall meet. This Committee shall select all domestic officers of the Congress, and shall at its discretion confirm all nominations by members of the International Executive Committee and in the event that any member of the International Executive Committee shall fail to nominate by the time specified by special regulation, the Committee on Organization shall elect officers for the country thus delinquent. It may appoint Vice-Presidents and Auxiliary Committeemen in foreign countries independently of nominations by the members of the International Executive Committee. It shall appoint Auxiliary Committees, arrange for the meeting, and frame special regulations for the session of Congress for which it was appointed. It shall make a report of its transactions to the opening session of the Congress.

THE INTERNATIONAL EXECUTIVE COMMITTEE.

5. There shall be an International Executive Committee which shall be appointed by the first Committee on Organization and which shall consist of one member for each constituent country. This Committee shall hold permanent tenure of office except that when a member shall fail to be present at a meeting of the Congress, his office shall be declared vacant and the vacancy be filled by election held by the registered members from the country from which he was accredited. In the event of no representation whatever from the country in question, the members of the International Executive Committee present, shall determine what disposition shall be made of the office.

It shall be the duty of each member of the International Executive Committee to nominate from the medical profession of his country, one Vice-President for the Congress and one Secretary for each Section of the Congress, and to forward the same to the Chairman of the Committee on Organization; except that in any country in which the Congress shall meet, it shall be the duty of the member of the International Executive Committee for that Country to request his representative national medical association to appoint a Committee on Organization, which Committee on Organization shall discharge the duties designated in Regulation IV. Members of the International Executive Committee shall also nominate such Auxiliary Committees, and shall furnish such information as the Committee on Organization may request.

6. The Committee on Organization may at its discretion cause the Congress to be incorporated, which incorporation shall hold only until the final disbursement of funds for the session held in that particular country. In the event of such incorporation such officers shall be elected and in such manner as may be required by law.

7. The following shall be considered as the constituent countries of the Pan-American Medical Congress:

Argentine Republic, Bolivia, Brazil, British North America, British West Indies, (including B. Honduras), Chili, Honduras, (Sp.), Mexico, Nicaragua, Paraguay, Peru, Salvador, Columbia, Costa Rica, Ecuador, Guatemala, Haiti, Hawaiian Islands, Santo Domingo, Spanish West Indies, United States, Uruguay, Venezuela, Danish, Dutch and French West Indies.

8. The Sections of the Congress shall be as follows:

(1) General Medicine, (2) General Surgery, (3) Military Medicine and Surgery, (4) Obstetrics, (5) Gynæcology and Abdominal Surgery, (6) Therapeutics, (7) Anatomy, (8) Physiology, (9) Diseases of Children, (10) Pathology, (11) Ophthalmology, (12) Laryngology and Rhinology, (13) Otology, (14) Dermatology and Syphilography, (15) General Hygiene and Demography, (16) Marine Hygiene and Quarantine, (17) Orthopædics, (18) Diseases of the Mind and Nervous System, (19) Oral and Dental Surgery, (20) Medical Pedagogics, (21) Medical Jurisdiction.

LANGUAGES.

9. The languages of the Congress shall be Spanish, French, Portuguese and English.

AUXILLARY COMMITTEES.

10. The Auxiliary Committee shall consist of one member for each medical society on one for each considerable centre of population in population in each of the constituent counties of the Congress. Nominations for the Foreign Auxiliary Committee shall be made to the Chairman of the Committee on Organization by the members of the International Executive Committee, each for his own county, except that in the country in which the Congress is to be held nominations shall be made by the Committee on Organization. Appointments on the Auxiliary Committee sholl hold only for the meeting for which they were made.

Members of the Auxiliary Committee shall be the official

representatives of the Congress in their respective localities. It shall also be their duty:

(1) To transmit to the profession of their respective districts all information relative to the Congress forwarded to them for that purpose by the General Officers.

(2) To co-operate with the Officers of Sections in securing desirable contributions to the proceedings of the Congress.

(3) To furnish to the General Officers such information as they may request for the purpose of promoting the interests of the Congress.

(4) To cause such publicity to be given to the development of the organization as will elicit the interest of the profession and secure attendance upon the meeting, and they shall discharge such otner duties as will promote the welfare of the Congress.

SPECIAL REGULATION OF THE FIRST MEETING.

TIME AND PLACE OF MEETING.

1. The First Pan-American Medical Congress shall be held in the City of Washington, D. C., September 5, 6, 7, 8, A. D., 1893.

REGISTRATION.

2. The Registration fee shall be $10.00 for members residing in the United States, but no fee shall be charged to foreign members. Each registered member shall receive a card of membership and be furnished a set of the transactions.

ABSTRACTS, PAPERS AND DISCUSSIONS.

3. Contributions are required to forward abstracts of their papers, not to exceed six hundred words each, to be in the hands of the Secretary-General not later than July 10, 1893. These abstracts shall be translated into English, French,

Spanish and Portugese, and shall be published in advance of the meeting for the convenience of the Congress, and no paper shall be placed upon the programme which has not been thus presented by abstract. Papers and discussions will be printed in the language in which they may be presented. All papers read in the Sections shall be surrendered to the Secretaries of the Sections; all addresses read in the General Session shall be surrendered to the Secretary-General as soon as read; and all discussions shall be at once reduced to writing by the participants.

INCORPORATION.

4. The Chairman of the Committee on Organization shall cause the Congress to be incorporated under the laws of Ohio, and fifteen trustees shall be elected in accordance therewith, who by by-laws and through the Executive Committe shall supervise all receipts and disbursements by the Treasurer in accordance with the laws of Ohio. The President, Secretary-General, Treasur, the member of the International Executive Committee for the United States, and Chairman of Sections shall be *ex-officio* members of the Board of Trustees.

FOREIGN NOMINATIONS.

5. All nominations by the International Executive Committee must be in the hands of the Chairman of the Committee on Organization by June 1, 1892, and in default thereof the Committee on Organization shall elect officers for Countries thus delinquent.

THE ORGANIZATON OF RECTIONS.

6. The officers of each section shall consist of: Honorary Chairman, who shall be residents of the constituent countries of the Congress; one Executive Chairman, who shall organize the work of the Section, direct its deliberations, and deliver

an inaugural address at its opening seseion; one English-speaking Secretary and one Spanish-speaking Secretary, residents of the United States, who shall co-operate with the Executive Chairman in conducting the correspondence of the section; and there shall be one secretary for each section, resident in each additional constituent country of the Congress.

DOMESTIC AUXILIARY COMMITTEE.

7. The Auxiliary Committee for the United States shall be elected by the Committee on Organization and shall consist of one member for each local medical society, or, in the absence of medical organization, then one in each considerable center of population, which Auxiliary Committee shall co-operate with the Committee on Organization and with the General Officers in promoting the welfare of the Congress. Nominations for the Auxiliary Committee shall be made by the members of the Committee on Organization, each for his own State, except that in the failure of any member to make such nomination by January 1, 1892, or in the inadequacy of the same, the Chairman of the Committee on Organization shall supply the deficiency.

EXECUTIVE COMMITTEE.

8. The Board of Trustees shall designate seven members, including the President, Treasurer, Secretary-General, and member of the International Executive Committee for the United States, who shall comprise an Executive Committee which shall transact all business of the Congress *ad interim* in accordance with By-Laws by the Board of Trustess.

AMENDMENTS.

9. Amendments to these Regulations can be made only by the International Executive Committee on a majority vote, ten members constituting a quorum, at any meeting of the Congress.

Pursuant to the Laws of Ohio and the Regulations adopted as above, and in accordance with nominations by the Committee on Permanent Organization, the Incorporators elected fifteen Trustees as follows:

Dr. W. T. Briggs, Tennessee: Dr. Geo. F. Shrady, New York; Dr. P. O. Hooper. Arkansas; Dr. S. S. Adams, District of Columbia; Dr. H. O. Marcy, Massachusetts; Dr. J. F. Kennedy, Iowa; Dr. H. D. Dalton, Vermont; Dr. L. S. McMurtry, Kentucky; Dr. N. S. Davis, Illinois; Dr. Levi Cooper Lane, California; Dr. I. N. Love, Missouri; Dr. Hunter McGuire, Virginia; Dr. J. C. Culbertson, Illinois; Dr, A. Walter Suiter, New York; Dr. C. H. Mastin, Alabama.

Drs. L. S, McMurtry (Kentucky), I. N. Love (Missouri), and W. W. Potter (New York), were designated to act as members of the Executive Committee.

The organization of the Congress is complete in British North America, the British West Indies, the Spanish West Indies, Guatemala, Nicaragua, United States of Columbia, Brazil, Uruguay, Venezuela and the Argentine Republic. It is confidently expected that the nominations from the remaining countries will be in by June.

It is expected to announce the completed organization of the Congress, its Section and Auxiliary Committees, Domestic and Foreign, by July 1, 1892.

On behalf of the Committee on Permanent Organization,

J. W. CARHART, Secretary.

CHARLES A, L. REED, Chairman.

SELECTIONS.

EYE STRAIN AND DISEASE.

Under the heading of A Great Medical Discovery Ignored, the *Medical News* for December 12, says:

There are few medical truths that have been discovered fraught with more possible and incalculable good to humanity than one that is ignored by the great body of the medical profession.

There are explanations and sufficient reasons for this anomalous fact. Among them may be noted these:

1. The discovery has come about slowly and silently. It has been made by no one man and has come with no flourish of international congressional trumpeters. So softly and slowly has it crept into scientific medicine that its own advocates are but half aware of it, and do not yet realize its almost unparalleled value.

2. It is a therapeutic measure that depends for its exercise upon an exactness of knowledge of delicate mysterious physiological and psychological functions that few possess, and upon a subtle discrimination and judgment with which, by character or education, few are endowed.

3. It has the misfortune to depend for its promulgation and practical application upon the specialist, and almost upon the specialist of a specialty—and this in a profession and in an epoch in which it is fashionable to sneer at specialism, and at the specialist who dares plead for the truth he knows—and that, at first at least, only he can know.

4. The tradition and habit and ambition of the ophthalmic

specialist is to treat diseases—inflammations—or to perform operations upon the eye. The truth is that refraction-work has come into tremendous importance, and must make up nine-tenths of the routine practice of the future ophthalmologist.

Is it an exaggeration to say that the chief complaints of fully one-half of the patients that apply to the family physician are of headache and digestional affections? Is it another exaggeration to say that fully one-half fail to get permanent relief?

Is it again an exaggeration to say that from these causes a large proportion of women have hopelessly resigned themselves to a lifetime of wretchedness?

The oculist daily has patients who have spent (to them) fortunes paying physicians and druggists; who have taken everything and done everything for ten, twenty, or thirty years to get relief from wretchedness beyond description. No physician ever said "eyes" to them. Yet a pair of glasses relieving the compound hyperopic, perhaps unsymmetrical, astigmatism and anisometropia give relief as if by magic.

If these things are true to anything like the extent contended for, the general standard of health is being distinctly lowered and the average vitality of the race lessened by a cause that so generally and so profoundly affects its mothers for evil. Headache—deranged function of the organ that controls vital function—and digestional abnormity—nutrition being the very source of vital power—have an evil significance impossible of over-valuation.

For twenty years the ophthalmologists have been tirelessly preaching that eye-strain due to refraction errors is the chief causational factor in the production of headache. This is the truth, and yet the truth is ignored the world over. In Europe it is hardly suspected, commonly scouted, and, so far as therapeutic application is concerned, hardly dreamed of. It is only in the United States, and even here only in one or two cities, that the truth has a comparatively adequate application. To the great majority of those of the country who are suffering

from ametropically-caused disease no word has come as to the origin of their trouble.

But this, as regards headache alone, is only half of the truth. Wherever there is headache there is nutritional disturbance. In rare cases there may be a digestional reflex neurosis without headache and due to ocular irritation. Usually the headache precedes or accompanies. Hence it is that the full power of eye-strain to work disaster will never be realized until there is a general recognition on the part of the profession that anorexia, dyspepsia, and constipation are very, very frequently due directly to eye-strain. It is perfectly useless to sneer at hobby-riding. The sneer will not alter the fact or relieve the patient. It were better and more scientific to test the theory with a mind free of prejudice. One little proof is ready to hand: let the sneerer put on a pair of spectacles such as every oculist applies every day to correct ametropia. At most, it will take but a few hours for the artificial ametropia thus produced to bring on headache, and not only anorexia, but probably vomiting. There is one other test, easily applied: paralyze the accommodation for a week or two in a young patient suffering from possible reflex ocular neuroses. The frequent relief will be a striking lesson in differential diagnostication.

Sick headache, from which thousands in every community are sufferers, is usually, if not always, due to eye-strain, and, unless of lifelong duration, is quickly curable by a pair of proper spectacles.

Anæmia is, perhaps, most frequently due to the ocular irritation of uncorrected ametropia, followed by nutritional disturbance. Many cases of hysteria have the same ætiology.

But possibly the worst result of eye-strain is the generally impaired nutrition, the "nervousness," the neurasthenia, the reduced vitality that so far lessens resisting power as to make the system incapable of withstanding infectious disease or exceptional strain of any type. Eye-strain is a common and great soul-exhauster for the inrooting of a prolific crop of the weeds of general disease.

The "nervous" origin of disease is a fact becoming more recognized every day. If diabetes and albuminuria, as contended, may be of nervous origin, then diabetes, etc., may possibly be due to ametropia. Functional heart trouble, temporary anæsthesia, and paralyses, localized pain, etc., may be caused by a deranged reflex from a morbid peripheral stimulus, such as that of the eye. Functional disease is the foreerunner almost always of organic disease—the two are stages or phases of the same fact. Desire and physiological habit produce organs. Unhygienic habit and abnormal function wreck organs.

"But we cure headache, sick headache, giddiness, anæmia, and abnormalism of digestion by drugs alone, and every day." Willingly granted! because these affections are often, and perhaps generally, due to other than ocular causes. And more than this, powerful tonics may sometimes relieve, even when the neurosis is of ocular origin. It is an undeniable fact that some cures may be effected without touching the final and veritable causes of the disease. In stopping the one result of a reflex ocular neurosis by powerful drug action, the reflex may be shunted elsewhere, or more probably the evil effect of forcing ametropic eyes to continue their work without correcting lenses will be to produce the local ocular evils of blunted retinal sensibility (amblyopia), ametropic chorioido-retinitis, imbalance of the muscles (heterophoria), conjunctivitis, cataract, etc.

The cause of so much eye-trouble in modern life? A perfectly evident one: The eye in the animal world and in the human organism up to the present century was developed in response to definite need—that of the clearest possible distant vision. Civilization, demanding close and continued near vision, with the printing and writing and schools and commercialism, its indoor and urban life—all this is a thing of the past few dozen years. An organ produced by millions of years of reaction and habit can not, without harm and injury, be forced in a hundred to a different usage. The tremendous importance of the eye to the organism makes Nature, with her subtle,

wonderful wisdom, turn the irritational eye-strain reflex to brain or nutritive system—anywhere but to the all-important eye!—and hence it is that the eye does not feel pain, but other organs do. Inhibited reflexes produce general hyperæsthesia, vertigo, and headache; switched reflexes produce neuralgia, anorexia, car-sickness, etc.

There is one other manner in which civilization may act upon the eye; the intense labor to which it puts the eye brings ocular irritation and congestion, with varying tension, that undoubtedly produce or help to produce corneal asymmetry or astigmatism, the great agent of eye-strain. The necessity for accurate vision, the slavish continuance of long ocular labor, spurs the over-sensitive ciliary muscle and nerve-centers to extraordinary exertion and, each aiding other, the vicious cycle is complete. The hyperæsthetic sensibilities, the headaches, night-terrors,and anorexia of pain, early-forced, book-fed school children are the inevitable product of far-sighted astigmatism and short-sighted ambition. The brain is forced to unwonted tasks with imperfect ocular means. A discriminating physiologist sees that the eye is an organ fearfully overworked, bound up most intimately with every mental and physical act, most indescribably delicate in adjustment and function, and responding to a stimulus millions of times more swift and more infinitesimally small than that of any other sense-mechanism of the body.

Psychologically, character and calling in life have doubtless often been changed and determined by ocular irritation. It is a truism that the disposition is entirely changed by it. The mind is almost the sole product of the function of vision, all thinking being in pictures, the very letters of the alphabet being conventionalized pictures. American morbid restlessness and hyperæsthesia may to some extent be due to ocular irritation.

The practical lesson of it all is (so subtle are these beginnings and causes of evil) that every child, well or not well, should have its eyes examined to see if possible or unsuspected abnormity of the refraction exists. Especially is the possibility

of an ocular origin to be suspected in all cases of malassimilation not clearly traceable to other causes, in all cases of headache, neuralgia, chorea, nightmare, insomnia, etc.

With this Proviso and Condition:—That the ophthalmologist has been thoroughly trained in the very modern science and art of refraction, that a mydriatic be used, and that the refractive error be patiently and accurately worked out, not with the ophthalmoscope, but with the test-lenses, and worked out to a quarter or even to an eighth of a dioptre, and that a painstaking optician fit and adjust accurately made lenses. It is also necessary that spectacles be readjusted monthly so that they shall be kept with mathematical precision in their proper position before the eye.

AN ANOMALOUS ACTION OF THE SULPHATE OF HYOSCYAMINE USED AS A MYDRIATIC.

BY G. E. DE SCHWEINITZ, M.D.,

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The following cases are reported because they illustrate a somewhat unusual result after the instillation of a mydriatic, in each of the cases the sulphate of hyoscyamine.

CASE I.—A man, æt. 24, in good general health, suffered from ciliary pain and occasional violent headaches, migrainal in type, associated with gastric disturbances and renal torpidity. Many of the headaches appeared to be due to overuse of the eyes. The eye-grounds were normal, with the exception of slight retinal haze veiling the margins of the disks, and some undue fulness of the central veins.

Sulphate of hyoscymine, one-quarter of a grain to the drachm, was ordered for the purpose of correcting the error of refraction, which appeared to be a simple hypermetropic astigmatism. Two instillations were used,—one about the middle of the day, and one some time in the afternoon. Within an hour after the last instillation the patient experienced a paroxysm of violent pain, which he described in these words: "I feel as if some one had a gimlet and was boring a hole in my optic nerve." The pinched features, the contracted brow, the clinched hands, and restless demeanor gave every evidence of his intense suffering. The pupils were widely dilated; there was no change in the eye-ground and *no increase of tension.* Unfortunately, no measurements were made of the

degree of the ciliary paralysis. Eserine was instilled, and, although it did not neutralize the action of the mydriatic, the pain gradually subsided. Some time afterward the patient's refractive error was corrected after cumulative instillations of homatropine. Not the slightest inconvenience resulted, and there was no return of pain.

Not a little at a loss to explain this occurrence, the details of the case were repeated to Dr. S. D. Risley, whose investigations of hyoscyamine and its use as a mydriatic I felt might throw some light upon the subject. He at once recalled a similar case in his own experience, where, an hour or two after the instillation of the same drug in the same proportion, precisely the same symptoms arose. When Dr. Risley visited the case, he reasoned that it was possible that the drug had failed not only to paralyze the ciliary muscle completely, but that this structure had been provoked into a state of tonic spasm; hence if complete paralysis were quickly secured, the symptoms would be relieved. Acting on this idea, he repeatedly instilled into the eyes of the patient drops from the same solution which had provoked the pain, and was gratified to find that his theory had led him to the correct treatment. Relief followed very quickly, and there was no return of the trouble.

CASE II.—A man, æt. 29, in good general health, and with no bad habits, except the excessive use of tobacco, presented himself on account of stubborn occipital headache and post-ocular pain, aggravated by the use of his eyes. The ophthalmoscope revealed on the right side a large round disk, a deep physiological cup, and a slightly wooly eye-ground, with some absorption of the retinal pigment epithelium. The refractive error was a simple hypermetropic astigmatism. In the left eye the disk was gray, coarse retinal striation being evident from the upper and lower margins, and the choroid was granular. The refractive error apparently was a mixed astigmatism. Hyoscyamine, one-quarter of a grain to the drachm, was prescribed. The next morning the patient appeared with every

evidence of having passed a most uncomfortable night, and stated, curiously enough, almost in the exact words of the former patient, that he felt a pain which he should suppose was like that which would be produced by some one boring a hole in the back of his eye. The conjunctivæ were slightly hyperæmic, the veins of the forehead distended, and the face a little flushed. The intense pain which had existed through the entire night was becoming unendurable.

In spite of his pain, the patient was seated before the test-types, and selected the following glass: O.D.—1.25c. axis $15^{\circ 6}/_{VI}$; O.S.—2.75c. axis $75^{\circ 6}/_{XII}$. In other words, he accepted that glass which, judging from the ophthalmoscopic determination of the refractive error, indicated spasm of accommodation. Remembering the suggestion of Dr. Risley, I used an atropine-solution (four grains to the ounce), because I did not happen to have a hyoscymine-solution at hand. In fifteen minutes after the instillation the pain was gone; in half an hour the uncomfortable flush of the eye had died out, and the man was relieved. He was again seated before the test-tppes, and now readily selected the following: O.D+1c. axis $100^{\circ 6}/_{VI}$; O.S.+ 1⌒—2.75c. axis $80^{\circ 6}/_{VI}$. The ophthalmometer confirmed the degree of astigmatism and the axis of the cylinder, and, after several days' use of the mydriatic, during which the irritable condition of the eye-ground materially improved. This glass was ordered, and has since been worn with comfort.

Further comment on these cases seems unnecessary. It is evident that in all of the cases a cramp of the ciliary muscle took place and occasioned the intense pain of which the patients complained. As soon as full ciliary paralysis was secured the cramp was relieved.—*Therapeutic Gazette.*